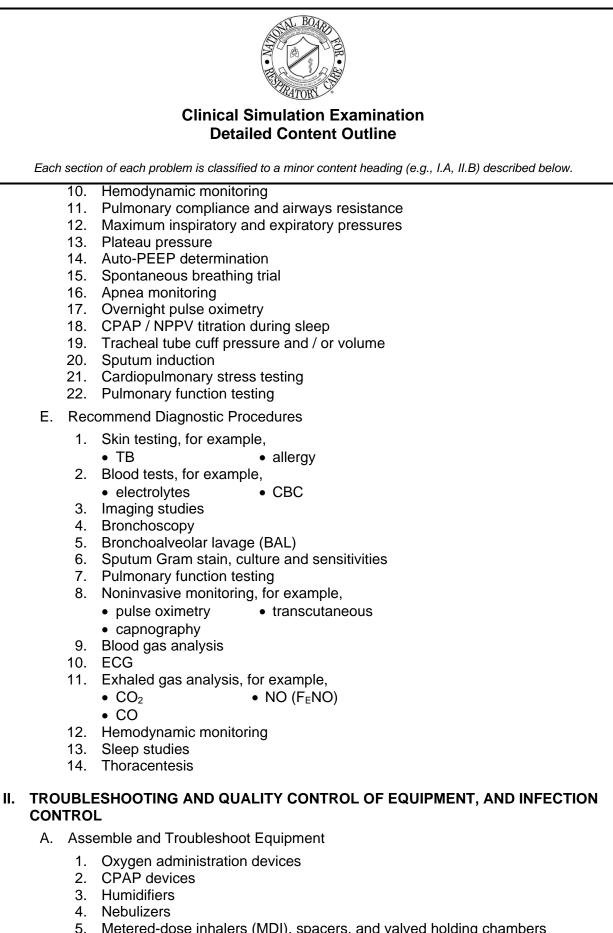
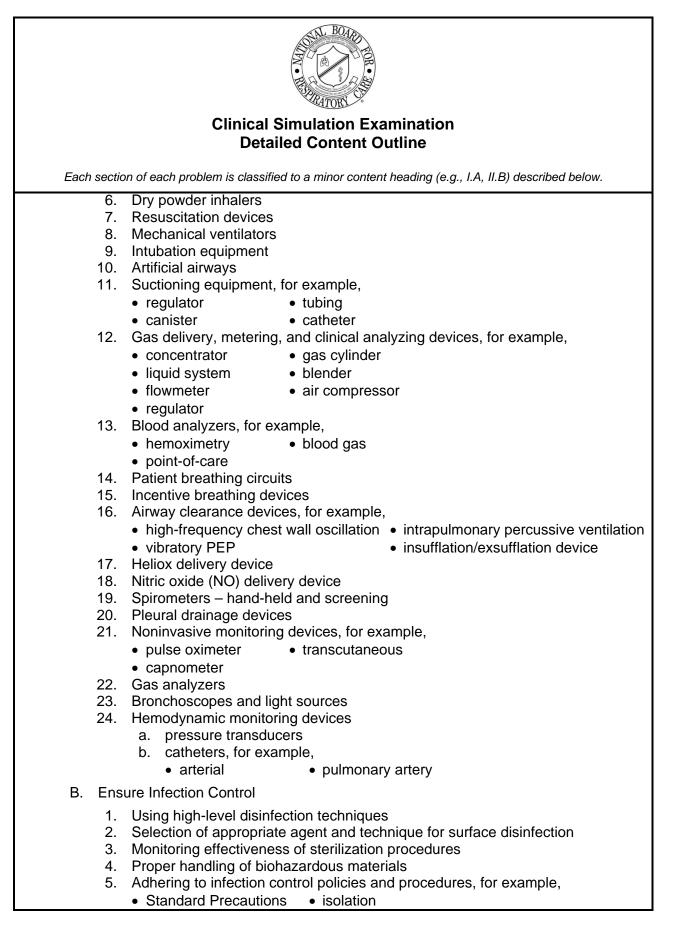




Each section of each problem is classified to a minor content heading (e.g., I.A, II.B) described below.

- C. Perform Procedures to Gather Clinical Information
  - 1. 12-lead ECG
  - 2. Noninvasive monitoring, for example,
    - pulse oximetry transcutaneous
    - capnography
  - 3. Peak flow
  - 4. Tidal volume, minute volume, and vital capacity
  - 5. Screening spirometry
  - 6. Blood gas sample collection
  - 7. Blood gas analysis / hemoximetry
  - 8. 6-minute walk test
  - 9. Oxygen titration with exercise
  - 10. Cardiopulmonary calculations, for example,
    - P(A-a)O<sub>2</sub> P / F
    - V<sub>D</sub> / V<sub>T</sub> oxygenation index
  - 11. Hemodynamic monitoring
  - 12. Pulmonary compliance and airways resistance
  - 13. Maximum inspiratory and expiratory pressures
  - 14. Plateau pressure
  - 15. Auto-PEEP determination
  - 16. Spontaneous breathing trial
  - 17. Apnea monitoring
  - 18. Overnight pulse oximetry
  - 19. CPAP / NPPV titration during sleep
  - 20. Tracheal tube cuff pressure and / or volume
  - 21. Sputum induction
  - 22. Cardiopulmonary stress testing
  - 23. Pulmonary function testing
- D. Evaluate Procedure Results
  - 1. 12-lead ECG
  - 2. Noninvasive monitoring, for example,
    - pulse oximetry transcutaneous
    - capnography
  - 3. Peak flow
  - 4. Tidal volume, minute volume, and vital capacity
  - 5. Screening spirometry
  - 6. Blood gas analysis / hemoximetry
  - 7. 6-minute walk test
  - 8. Oxygen titration with exercise
  - 9. Cardiopulmonary calculations, for example,
    - P(A-a)O<sub>2</sub> P / F
    - V<sub>D</sub> / V<sub>T</sub> oxygenation index







Each section of each problem is classified to a minor content heading (e.g., I.A, II.B) described below.

- C. Perform Quality Control Procedures
  - 1. Gas analyzers
  - 2. Blood gas analyzers and hemoximeters
  - 3. Point-of-care analyzers
  - 4. Pulmonary function equipment
  - 5. Mechanical ventilators
  - 6. Gas metering devices, for example, flowmeter
  - 7. Noninvasive monitors, for example,
    - transcutaneous

#### **III. INITIATION AND MODIFICATION OF INTERVENTIONS**

- Maintain a Patent Airway Including the Care of Artificial Airways Α.
  - 1. Proper positioning of a patient
  - 2. Recognition of a difficult airway
  - 3. Establishing and managing a patient's airway
    - a. nasopharyngeal airway
    - b. oropharyngeal airway
    - c. laryngeal mask airway
    - d. esophageal-tracheal tubes / supraglottic airways, for example, • Combitube<sup>®</sup>
      - King®
    - e. endotracheal tube
    - f. tracheostomy tube
    - g. laryngectomy tube
    - h. speaking valves
  - 4. Performing tracheostomy care
  - 5. Exchanging artificial airways
  - 6. Maintaining adequate humidification
  - 7. Initiating protocols to prevent ventilator associated pneumonia (VAP)
  - 8. Performing extubation
- Perform Airway Clearance and Lung Expansion Techniques B.
  - 1. Postural drainage, percussion, or vibration
  - 2. Suctioning, for example,
    - nasotracheal oropharyngeal
  - 3. Mechanical devices, for example,
    - high-frequency chest wall oscillation
      intrapulmonary percussive ventilation
    - vibratory PEP

- insufflation / exsufflation device
- 4. Assisted cough, for example, • huff quad
- 5. Hyperinflation, for example,
  - incentive spirometry IPPB
- Inspiratory muscle training techniques 6.

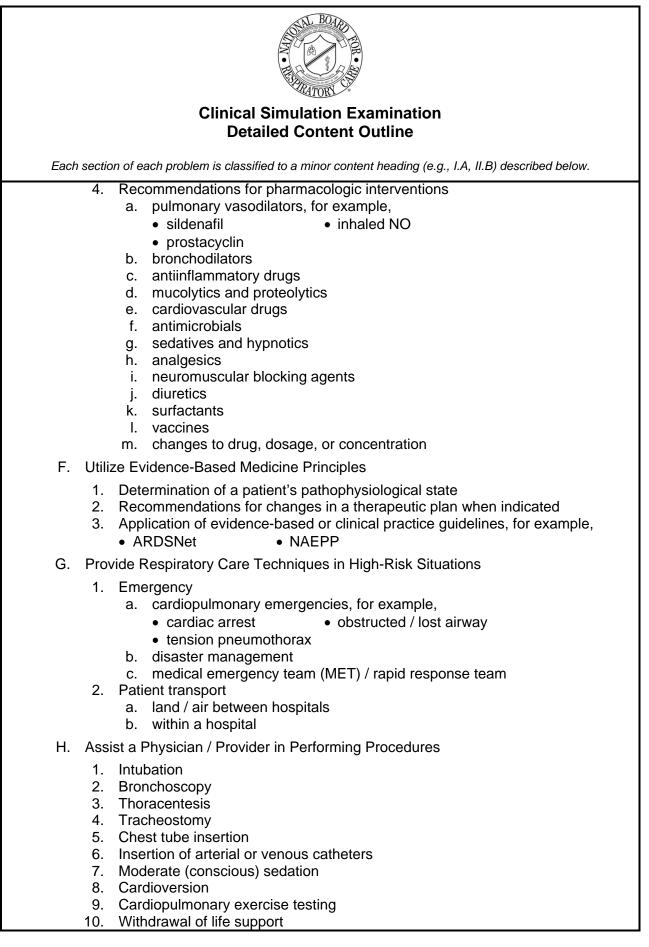


Each section of each problem is classified to a minor content heading (e.g., I.A, II.B) described below.

- C. Support Oxygenation and Ventilation
  - 1. Initiating and adjusting oxygen therapy, for example,
    - high-flow
  - 2. Minimizing hypoxemia, for example,
  - patient positioning
    suctioning
  - 3. Initiating and adjusting mask or nasal CPAP
  - 4. Initiating and adjusting mechanical ventilation settings
    - a. continuous mechanical ventilation
    - b. noninvasive ventilation
    - c. high-frequency ventilation
    - d. alarms

low-flow

- 5. Correcting patient-ventilator dyssynchrony
- 6. Utilizing ventilator graphics, for example,
  - waveforms scales
- 7. Performing lung recruitment maneuvers
- 8. Liberating patient from mechanical ventilation (weaning)
- Administer Medications and Specialty Gases D.
  - 1. Aerosolized preparations, for example, MDI
    - SVN
  - 2. Dry powder preparations
  - 3. Endotracheal instillation
  - 4. Specialty gases, for example,
    - heliox • NO
- Ensure Modifications are Made to the Respiratory Care Plan E.
  - 1. Treatment termination, for example,
    - life-threatening adverse event
  - 2. Recommendations
    - a. starting treatment based on patient response
    - b. treatment of pneumothorax
    - c. adjustment of fluid balance
    - d. adjustment of electrolyte therapy
    - e. insertion or change of artificial airway
    - f. liberating from mechanical ventilation
    - q. extubation
    - h. discontinuing treatment based on patient response
  - 3. Recommendations for changes
    - a. patient position
    - b. oxygen therapy
    - c. humidification
    - d. airway clearance
    - e. hyperinflation
    - f. mechanical ventilation parameters and settings





Each section of each problem is classified to a minor content heading (e.g., I.A, II.B) described below.

I. Initiate and Conduct Patient and Family Education

- 1. Safety and infection control
- 2. Home care and equipment
- 3. Smoking cessation
- 4. Pulmonary rehabilitation
- 5. Disease management
  - a. asthma
  - b. COPD
  - c. sleep disorders

### **Specifications for Each Test Form**

Problem Type	Specifications
A1. COPD conservative management	2
A2. COPD critical care management	2
B. Adult trauma	3
C. Adult cardiovascular	3
D. Adult neurological or neuromuscular	2
E. Pediatric	2
F. Neonatal	2
G. Adult medical or surgical	4
T	otal 20

# Clinical Simulation Examination Admission Requirements

- 1. Applicants shall satisfy ONE of the following requirements:
  - Applicants shall be a CRT and have successfully completed the Therapist Written Examination (WRRT) on or before December 31, 2014.
  - Applicants shall be a CRT and have successfully completed the Therapist Multiple-Choice Examination (TMC) by achieving the higher cut score on or after January 1, 2015.

# **CRT-to-Registry Admission Policy**

The NBRC continually receives inquiries regarding the "CRT-to-Registry" provision of the admission policies for the examinations associated with the RRT. Below are answers to the most commonly asked questions relating to this alternative route to the examinations associated with the RRT. If you have questions which are not answered below, or if you need further clarification of this admission policy, please contact the NBRC Executive Office.

#### The CRT-to-Registry provision is as follows:

 Be a CRT for at least four years prior to applying for the examinations associated with the RRT. In addition, the applicants shall have at least 62 hours of college credit from a college or university accredited by its regional association or its equivalent. The 62 semester hours of college credit must include the following courses: anatomy and physiology, chemistry, microbiology, physics, and mathematics.

OR

• Be a CRT for at least two years prior to applying for the examinations associated with the RRT. In addition, the applicant shall have earned a minimum of an associate degree from an accredited entry-level respiratory therapy education program.

OR

 Be a CRT for at least two years prior to applying for the examinations associated with the RRT. In addition, the applicant shall have earned a baccalaureate degree in an area other than respiratory care and shall have at least 62 semester hours of college credit from a college or university accredited by its regional association or equivalent. The 62 semester hours of college credit must include the following courses: anatomy and physiology, chemistry, mathematics, microbiology, and physics.

# **Eligibility Three-Year Time Limit**

Effective January 1, 2005, new graduates of accredited advanced-level education programs will have three years after graduation to earn the RRT credential. Individuals who do not earn the RRT credential within this time limit will be required to retake and pass the Therapist Multiple-Choice Examination at the CRT cut score to regain eligibility, and any previous passing performance to earn the RRT credential shall be nullified. Following regaining eligibility by taking and passing the Therapist Multiple-Choice Examination at the CRT cut score, the candidate will have another three years to earn the RRT credential. The individual must apply as a new candidate and pay all applicable fees to take the Therapist Multiple-Choice and Clinical Simulation Examinations.

NBRC's mission is to evaluate the competency of respiratory therapists and to support the profession of respiratory care. It's a role that we take very seriously. As the provider of the RRT, the credential that is considered the "standard of excellence" in respiratory care, it is our responsibility to ensure that graduates of advanced-level education programs have the opportunity to earn the RRT credential. During a time when there is a shortage of qualified respiratory therapists to provide the excellent care that patients expect, advanced-level graduates who earn the RRT credential are in high demand nationwide and can help to fill this shortage.

Clinical Simulation Examination Examination Fees	
New Applicant	Repeat Applicant
\$200	\$200